

## METHOD OF MAKING A SPIN VALVE SENSOR WITH A CONTROLLED FERROMAGNETIC COUPLING FIELD

### ABSTRACT OF THE DISCLOSURE

5           A pinned layer structure of a spin valve sensor is formed by sputter deposition of cobalt iron (CoFe) in a nitrogen (N<sub>2</sub>) atmosphere. This method permits a wider range of deposition times of a copper spacer layer to achieve a desirable ferromagnetic coupling field (H<sub>F</sub>) between the pinned layer structure and a free layer structure in the spin valve sensor.

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